

4 August 2020

Downer EDI Mining – Blasting Services Pty Ltd
Lot 2, 8 Melva Place
Mt Thorley NSW 22330

<https://www.epa.nsw.gov.au/licensing-and-regulation/public-registers>

**Effluent Water Quality Monitoring – Downer Blasting Services (DBS), 9 Melva Place, Mount
Thorley
July 2020**

Effluent Water Quality Monitoring was carried out at Downer Blasting Facility, EPL Licence 12325. The sampling was conducted by independent consultancy Environmental Resources Management (ERM) on behalf of DBS.

Sampling was carried out in accordance with the Approved Methods for the Sampling and Analysis of Water Pollutants in New South Wales (DEC, 2004, Approved Methods), with reference to the following standards:

- AS/NZS 5667.1:1998(R2016) Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples; and
- AS/NZS 5667.4:1998(R2016) Guidance on sampling from lakes, natural and manmade.

Effluent is required to be sampled on a quarterly basis from the site Waste Water Treatment Plant (WWTP) as per the requirements of EPL Licence 12325.

The sample point utilised to undertake the sample was:

Effluent discharge outlet hose located at Monitoring at co-ordinates 322450 6389500 (Easting Northing)

Or

If insufficient treated effluent is available to enable sampling from discharge outlet, sampling is taken from the final effluent holding tank

The sample was transported to Eurofins laboratory, a NATA accredited laboratory, on the same day for pH and faecal coliforms analysis.

Results Summary

The analytical results from this event and previous monitoring events are displayed in **Table 1** below.

Table 1 Table 1 Effluent Water Quality Monitoring Results

| Event | Sample Month | pH | Faecal coliforms (MPN or CFU/100mL) |
|---------|--------------|------|-------------------------------------|
| Q2 2018 | Jun-18 | 4.00 | <2 |
| Q3 2018 | Sep-18 | 7.49 | 62.0 |
| Q4 2018 | Dec-18 | 7.58 | ~400* |
| Q1 2019 | Mar-19 | 7.55 | ~91* |
| Q2 2019 | Jun-19 | 7.96 | 130.0 |
| Q3 2019 | Sep-19 | 4.26 | <9 |
| Q4 2019 | Dec-19 | 5.05 | <17 |
| Q1 2020 | Feb-20 | 3.28 | <9 |
| Q2 2020 | Jun-20 | 7.90 | >24000** |
| Q2 2020 | July-20 | 6.4 | 840 |

Discussion

There are no limits set in EPL Licence 12325 for the WWTP Effluent sample for pH or faecal coliforms.

Two sampling events were undertaken within Quarter 2 of 2020, June and July. The second sampling event, the July event, was undertaken due to an anomalous result for faecal coliforms reported during the June sampling event. It is considered that the June results were elevated on the basis that the sample was collected from an incorrect point within the effluent treatment system

and was not representative of the treated effluent that can be discharged following treatment. The July sample was collected from the final holding tank, which is considered representative of levels that may be discharged by the system if levels within the final holding tank trigger a discharge. It is noted that that the system has not discharged treated effluent in over year as the demand on the system is not high enough to reach the required discharge levels.

The next sample is due to be completed in 3 months.

Appendix A - Certificate of Analysis

Sample 1 – Jun-20



Certificate of Analysis

ERM Hunter Valley
Level 1 / 45 Watt Street
Newcastle
NSW 2300



NATA Accredited
Accreditation Number 1261
Site Number 1254 & 14271

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or
measurements included in this document are traceable
to Australian/national standards.

Attention: Matthew Colthorpe

Report: 726627-W

Project name: DBS MT THORLEY SW

Project ID: 555801

Received Date: Jun 18, 2020

| | | | |
|--------------------------|-----|-----------|--------------|
| Client Sample ID | | | EF01 |
| Sample Matrix | | | Water |
| Eurofins Sample No. | | | M20-Jn32539 |
| Date Sampled | | | Jun 18, 2020 |
| Test/Reference | LOR | Unit | |
| | | | |
| pH (at 25°C) | 0.1 | pH Units | 7.9 |
| Pathogens | | | |
| Thermotolerant Coliforms | 1 | MPN/100mL | >24000 |

Sample 2 – Jul-20



Environment Testing

Certificate of Analysis

ERM Hunter Valley
Level 1 / 45 Watt Street
Newcastle
NSW 2300



NATA Accredited
Accreditation Number 1261
Site Number 1254 & 14271

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or
measurements included in this document are traceable
to Australian/national standards.

Attention: Matthew Colthorpe

Report 734836-W
Project name DBS MT THORLEY SW
Project ID 555801
Received Date Jul 29, 2020

| | | | |
|--------------------------|-----|-----------|--------------|
| Client Sample ID | | | EFF_01 |
| Sample Matrix | | | Water |
| Eurofins Sample No. | | | M20-JI49094 |
| Date Sampled | | | Jul 29, 2020 |
| Test/Reference | LOR | Unit | |
| | | | |
| pH (at 25°C) | 0.1 | pH Units | 6.4 |
| Pathogens | | | |
| Thermotolerant Coliforms | 1 | MPN/100mL | 840 |